METROPOLITAN
TRANSPORTATION
COMMISSION

Joseph P. Bort MetroCenter
101 Eighth Street
Oakland, CA 94607-4700
TEL 510.817.5700
TDD/TTY 510.817.5769
FAX 510.817.5848
E-MAIL info@mtc.ca.gov
WEB www.mtc.ca.gov

Memorandum

TO: Planning Committee DATE: February 8, 2008

FR: Deputy Executive Director, Policy W. I.

RE: Transportation 2035 Performance Objectives Follow-Up: Transit Maintenance

Background

At your January 14 meeting, this Committee provisionally approved a staff recommendation to include a set of ambitious performance objectives as part of the Transportation 2035 Plan; the Commission endorsed the Committee's approval action at its January 23, 2008 meeting. Staff did not define a specific transit maintenance performance objective pending further discussion with our partner agencies; staff now recommends two transit maintenance performance objectives.

Recommended Transit Maintenance Performance Objectives

Staff has consulted with our transit partners over the past month to identify a specific transit maintenance performance objective, which was previously identified as a "TBD" (to be determined) in the set of performance objectives approved by this Committee and the Commission last month. Based on our discussion with the transit operators, staff recommends two objectives, summarized in the following table and discussed in greater detail below.

Goal	New Performance Objectives
Maintenance & Safety	Improve Maintenance • Transit Maintenance – 1. Achieve an average age for all asset types that is no more than 50% of their useful life 2. Increase the average number of miles between service calls for transit service in the region.

- *Achieve an average age for all asset types that is not more than 50% of their useful life.*

This objective focuses on the region's need to maintain assets in good working condition in order to provide quality, reliable transit service. The objective was supported by the Partnership Board's Transit Finance Working Group as the most feasible measure of the state of good repair of the operators' assets. The age of assets is used as a proxy for condition because data on the condition of the region's transit capital assets is not currently available. The average age of assets is expressed as a percentage of the useful life in order to compare the relative age of different asset types, which have a wide range of useful lives. The objective of 50% is being recommended because if all capital assets were replaced at the end of their useful life, over time the pool of assets would have an average age as a percentage of useful life of 50%.

The average age as a percentage of useful life for all of the region's transit capital assets is currently estimated to be 74%. The average age as a percent of useful life for revenue vehicles is 69%.

An advantage of this objective is that it can be estimated at various future points in time under various capital replacement funding scenarios. A disadvantage is that asset age is an imperfect proxy for condition, since other factors affect the condition of an asset independent of its age.

Another disadvantage of this measure is that data on Muni's capital assets other than vehicles is not currently available, so estimates of the average age of the region's transit capital assets other than vehicles would not include Muni's assets (see discussion below). Muni's non-vehicle assets are likely to be older, on average, than the assets of other operators, so this omission is likely to result in an underestimate of the average age of the region's assets. Muni is undertaking a capital asset assessment so that all assets can be included in this objective.

- *Increase the average number of miles between service calls for transit service in the region.*

This objective is being proposed by MTC staff as another means of assessing the ability of the region's transit system to provide quality, reliable transit service. It was developed in response to operator comments that the performance objectives for transit capital maintenance should measure the region's progress toward achieving a state of good repair for all assets. A service call occurs when a vehicle requires repair and cannot complete scheduled service. In FY 2004-05, the most recent year for which published data is available, the average number of miles between service calls for rail service was 7,890, with 5,680 for bus service, and 6,090 for rail and bus combined. A potential goal could be to increase the combined total to 8,000 miles.

An advantage of this objective is that it would capture the effects of preventive maintenance better than the average age of assets – i.e., a well-maintained system breaks down less often. A disadvantage is that we would not be able to estimate the future number of service calls under various RTP funding scenarios - performance on this objective can only be determined empirically after the fact. Performance on this objective would be calculated from data reported by the operators to the National Transit Database (NTD).

Discussion

Over the last year, MTC staff has been working intensively with transit operators to collect and analyze data on transit system assets as part of the Regional Transit Capital Inventory (RTCI) project. We now have data from most operators indicating for each the types of assets owned, as well as their age, expected life cycle, and cost to replace. The asset data is being used currently to estimate the transit capital maintenance and rehabilitation need and shortfall for the 2035 Plan, and staff recommends this same data be used for assessing the Plan's progress in meeting the transit maintenance performance objective. However, the transit data does not include an assessment of the assets' conditions, i.e. their current state of good repair/deterioration. There is thus no equivalent for transit to the Pavement Condition Index (PCI) "score" that exists for local streets and roads. The transit operators voiced support for moving toward developing an equivalent metric to determine the state of good repair for transit assets, they recognized that this effort could take years since much of the primary data does not exist and would require data collection including physical surveys.

Recommendation
The complete set of performance objectives for the Transportation 2035 Plan is included in Attachment A. Staff recommends that this Committee provisionally approve the new transit maintenance performance objectives.

As with the other previously approved performance objectives, staff will periodically monitor the progress made for each performance objective as part of the State of the System Report and/or as part of each RTP update. The Commission, at its discretion and at any time, may consider changes, substitutions, or deletions of the performance objectives to better align with Commission policy or new circumstances.

Therese W. McMillan

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Attachment A: Performance Objectives for Transportation 2035 Plan

"E" Principle	Goals	Performance Objectives	Rationale	Source
Economy	1. Maintenance & Safety	<u>Improve maintenance</u> - • Maintain local road pavement condition index (PCI) of 75 or greater for local streets and roads • State highway distressed pavement condition lane-miles not to exceed 10% of total system • **Transit: 1) Achieve an average age for all asset types that is no more than 50% of their useful life; and 2) Increase the average number of miles between service calls for transit service in the region to 8,000 miles. (new)** <u>Reduce Collisions/Fatalities</u> • Reduce fatalities from motor-vehicle collisions by 15 percent from today by 2035 • Reduce bicycle and pedestrian fatalities attributed to motor vehicle collisions by 25 percent each from 2000 by 2035 • Reduce bicycle and pedestrian injuries attributed to motor vehicle collisions by 25 percent each from 2000 by 2035	It costs far less to keep the existing transportation infrastructure in good condition than it does to allow it to deteriorate to the point where major rehabilitation or replacement is required. Ensuring the safety of travelers is a top priority for all government agencies engaged in transportation, whether the trip is by car, transit, bike or walking. Bicyclists and pedestrians represent 24% of Bay Area fatalities, which is 50% higher than the national average.	Partnership Local Streets and Roads Working Group's Strategic Plan Adapted from California Strategic Highway Safety Plan (2006)
	2. Reliability 3. Freight	Reduce per-capita delay by 20 percent from today by 2035	The San Francisco-Oakland area has the second worst congestion in the U.S., resulting in degradation of quality of life and economic costs.	Governor's Strategic Growth Initiative

"E" Principle	Goals	Performance Objectives	Rationale	Source
	4. Security	No objective recommended, however, the region will continue to improve disaster and security preparedness	Transportation security is tied to the Dept. of Homeland Security's efforts; there are no clear targets for the region. Notwithstanding, interagency coordination and training must be sustained so that Bay Area transportation infrastructure can best respond when the next major earthquake occurs. Potential terrorist attacks on transportation will likely focus on transit systems.	Developed in cooperation with the Department of Homeland Security and Bay Area Transit Security Working Group
Environment	5. Clean Air 6. Climate Protection	Reduce daily per-capita vehicle miles traveled (VMT) by 10 percent from today by 2035 <u>Reduce Emissions</u> • Reduce emissions of finer particulates ($PM_{2.5}$) by 10 percent from today by 2035 • Reduce emissions of coarse particulates (PM_{10}) by 45 percent from today by 2035 • Reduce carbon dioxide (CO_2) emissions to 40 percent below 1990 levels by 2035	Pending state legislation (SB 375) in its original form called for creating aggressive targets for reducing VMT in response to global climate change (the bill now directs CARB to establish CO_2 targets for large metro areas) When inhaled, particulate matter (such as dust, tailpipe exhaust, soot and smoke) can settle deep in the lungs and pose serious health problems. Bay Area does not attain the current state $PM_{2.5}$ standard and is likely to be designated in 2010 as a federal non-attainment area for $PM_{2.5}$. The Bay Area does not currently attain the state PM_{10} annual or 24-hour standards. Bay Area transportation sector contributes some 50 percent of CO_2 emissions, and AB 32 mandates CO_2 reductions to 1990 levels or lower by the year 2020.	SB 375 (Steinberg), prior to amendment Reductions derived by the Bay Area Air Quality Management District based on existing PM State standards California Global Warming Solutions Act of 2006 and Governor's Strategic Growth Initiative (CO_2 only)

"E" Principle	Goals	Performance Objectives	Rationale	Source
Equity	7. Access 8. Livable Communities	Decrease by 10 percent the combined share of low-income and lower-middle income residents' household income consumed by transportation and housing	Bay Area families with annual incomes under $70,000 spend a combined average of 67 percent of household income on housing (45 percent) and transportation (22 percent). A national study shows that in the Bay Area, the share low-income households spend on housing and transportation combined is about 10 percent higher than the national average (due in part to the high cost of housing here).	Adapted from the Center for Housing Policy report A Heavy Load: The Combined Housing and Transportation Burdens of Working Families (October 2006)